

Amendments to and Listing of the Claims:

Please amend claims 10-14, 18, 20, 22 and 23, without prejudice, as set forth in the following listing of the claims, where the following listing of the claims replaces all prior listings of the claims:

Listing of the Claims:

1. (Original) An estrogen receptor gene comprising a nucleotide sequence coding for any of the following amino acid sequences (a) to (f):
 - (a) the amino acid sequence of SEQ ID NO: 1,
 - (b) the amino acid sequence of SEQ ID NO: 4,
 - (c) the amino acid sequence of SEQ ID NO: 23,
 - (d) an amino acid sequence exhibiting 95% or more amino acid identity to the amino acid sequence of SEQ ID NO: 1,
 - (e) an amino acid sequence exhibiting 95% or more amino acid identity to the amino acid sequence of SEQ ID NO: 4, and
 - (f) an amino acid sequence exhibiting 85% or more amino acid identity to the amino acid sequence of SEQ ID NO: 23.

2. (Original) An estrogen receptor gene comprising any of the following nucleotide sequences (g) to (i):
 - (g) the nucleotide sequence represented by nucleotide numbers 424 to 1941 of SEQ ID NO: 2,
 - (h) the nucleotide sequence represented by nucleotide numbers 74 to 1819 of SEQ ID NO: 5, and
 - (i) the nucleotide sequence represented by nucleotide numbers 106 to 1767 of SEQ ID NO: 24.

3. (Original) A vector comprising the estrogen receptor gene according to claim 1.

4. (Original) The vector according to claim 3, wherein a promoter operably linked to the estrogen receptor gene.
5. (Original) The vector according to claim 3, wherein the vector is a virus.
6. (Original) A viral particle containing the vector according to claim 5.
7. (Original) A method for producing a vector, comprising a step of incorporating the estrogen receptor gene according to claim 1 into a vector replicable in a host cell.
8. (Original) A transformant, wherein the estrogen receptor gene according to claim 1 is introduced into a host cell.
9. (Original) A transformant, wherein the vector according to claim 3 is introduced into a host cell.
10. (Currently Amended) The transformant according to claim 8, wherein ~~said~~the estrogen receptor gene is introduced into a chromosome of said host cell.
11. (Currently Amended) The transformant according to claim 8, wherein ~~said~~the host cell is an animal cell.
12. (Currently Amended) The transformant according to claim 8, wherein ~~said~~the host cell is a mammal cell.
13. (Currently Amended) The transformant according to claim 8, wherein ~~said~~the host cell is an insect cell.
14. (Currently Amended) The transformant according to claim 8, wherein ~~said~~the host cell is a yeast cell.

15. (Original) A method for producing a transformant, comprising a step of introducing the estrogen receptor gene according to claim 1 into a host cell.

16. (Original) A method for manufacturing an estrogen receptor, comprising a step of culturing the transformant according to claim 8 and a step of producing estrogen receptor.

17. (Original) A DNA, comprising a partial nucleotide sequence of the estrogen receptor gene according to claim 1.

18. (Currently Amended) The DNA according to claim 17, wherein ~~said~~ the partial nucleotide sequence is a nucleotide sequence coding for a ligand binding domain of the estrogen receptor.

19. (Original) An estrogen receptor, comprising any of the following amino acid sequences (a) to (f):

- (a) the amino acid sequence of SEQ ID NO: 1,
- (b) the amino acid sequence of SEQ ID NO: 4,
- (c) the amino acid sequence of SEQ ID NO: 23,
- (d) an amino acid sequence exhibiting 95% or more amino acid identity to the amino acid sequence of SEQ ID NO: 1,
- (e) an amino acid sequence exhibiting 95% or more amino acid identity to the amino acid sequence of SEQ ID NO: 4, and
- (f) an amino acid sequence exhibiting 85% or more amino acid identity to the amino acid sequence of SEQ ID NO: 23.

20. (Currently Amended) A method for evaluating the ability of a test substance to regulate estrogen receptor activity, comprising a step of:
bringing the test substance into contact with a transformant, wherein a reporter gene linked downstream of a transcriptional control region including an estrogen response element sequence

and the estrogen receptor gene according to claim 1 are introduced into ~~said the~~ transformant,
and
measuring an expression amount of ~~said the~~ reporter gene in ~~said the~~ transformant.

21. (Original) A receptor binding assay, comprising a step of:
bringing a test substance into contact with the estrogen receptor according to claim 19 and
incubating.

22. (Currently Amended) ~~Use of the estrogen receptor gene according to claim 1~~ A method for measuring the ability of a test substance to regulate estrogen receptor activity
comprising the steps of:

(A) measuring any variation in expression amount of a reporter gene in a two-
hybrid system~~[[,]]~~wherein when the test substance is added, wherein in the system ligand-
dependent formation of a complex ~~comprising:~~ results in activation of transcription of the
reporter gene, wherein the complex comprises (i) an estrogen receptor encoded by the estrogen
receptor gene according to claim 1 and (ii) a transcription coupling factor capable of ligand-
dependently binding to the estrogen receptor or receptor binding domain of ~~said the~~ transcription
coupling factor; ~~results in activation of transcription of a reporter gene and~~

(B) evaluating the ability of the test substance to regulate estrogen receptor
activity.

23. (Currently Amended) ~~Use of DNA according to claim 17~~ A method for measuring
the ability of a test substance to regulate estrogen receptor activity comprising the steps of:

(A) measuring any variation in expression amount of a reporter gene in a two-
hybrid system~~[[,]]~~wherein when the test substance is added, wherein in the system ligand-
dependent formation of a complex ~~comprising:~~ results in activation of transcription of the
reporter gene, wherein the complex comprises (i) a ligand binding domain of an estrogen
receptor, the domain being encoded by a DNA comprising a partial nucleotide sequence of 300
or more nucleotides of the estrogen receptor gene according to claim 1, and (ii) a transcription
coupling factor capable of ligand-dependently binding to the estrogen receptor or receptor

Application No. 10/501,227
Reply to Office Action of November 21, 2006

binding domain of ~~said~~ the transcription coupling factor; ~~results in activation of transcription of a~~
~~reporter gene and~~

(B) evaluating the ability of the test substance to regulate estrogen receptor
activity.